

WHAT IS CLAIMED IS:

- 1 1. A method of maintaining printed circuit board manufacturing equipment
2 comprising contacting a component of the equipment with a composition including an
3 oxidant.
- 1 2. The method of claim 1, wherein the composition is an aqueous solution.
- 1 3. The method of claim 1, wherein the oxidant includes a peroxide.
- 1 4. The method of claim 1, wherein the composition further comprises a pH
2 modifier.
- 1 5. The method of claim 4, wherein the pH modifier includes a carbonate salt.
- 1 6. The method of claim 4, wherein the pH modifier is an acid.
- 1 7. The method of claim 4, wherein the pH modifier is a base.
- 1 8. The method of claim 4, wherein the pH modifier includes sodium carbonate.
- 1 9. The method of claim 4, wherein the pH modifier includes acetic acid.
- 1 10. The method of claim 1, wherein the component includes a residue.
- 1 11. The method of claim 10, wherein the residue includes a resist, a soldermask,
2 an antifoam agent, or a hard water deposit.
- 1 12. The method of claim 10, further comprising oxidizing the residue.
- 1 13. The method of claim 10, further comprising dispersing the residue.
- 1 14. The method of claim 10, further comprising dissolving the residue.
- 1 15. The method of claim 1, wherein the component includes a nozzle.
- 1 16. The method of claim 15, further comprising passing the composition through
2 the nozzle.

- 1 17. The method of claim 15, wherein the component includes a second nozzle.
- 1 18. The method of claim 17, further comprising passing the solution through the
2 first nozzle and the second nozzle simultaneously.
- 1 19. The method of claim 1, wherein contacting includes maintaining the
2 composition at a temperature greater than 80 °F.
- 1 20. The method of claim 1, wherein the oxidant includes hydrogen peroxide.
- 1 21. The method of claim 1, wherein the oxidant includes sodium perborate.
- 1 22. The method of claim 1, wherein the oxidant includes an organic peroxide, a
2 peracid, or a hydroperoxide.
- 1 23. The method of claim 1, wherein the solution includes a surfactant that is not
2 oxidized by the oxidant.
- 1 24. The method of claim 1, further comprising removing a waste material from
2 the equipment, the waste material including water, an oxidant, and an oxidized resist.
- 1 25. A method of cleaning printed circuit board manufacturing equipment
2 comprising contacting a component of the equipment including a residue with an aqueous
3 composition including an oxidant to oxidize the residue.
- 1 26. The method of claim 25, wherein the residue includes a resist, a soldermask,
2 an antifoam agent, or a hard water deposit.
- 1 27. The method of claim 25, further comprising dispersing the residue.
- 1 28. The method of claim 25, further comprising dissolving the residue.
- 1 29. The method of claim 25, wherein the component includes a nozzle.
- 1 30. The method of claim 25, wherein the oxidant includes hydrogen peroxide.

1 31. The method of claim 25, wherein the aqueous composition includes sodium
2 carbonate.

1 32. The method of claim 25, wherein the aqueous composition includes acetic
2 acid.

1 33. The method of claim 25, wherein the oxidant includes an organic peroxide, a
2 peracid, or a hydroperoxide.

1 34. The method of claim 25, further comprising removing a waste material from
2 the equipment, the waste material including water, an oxidant, and an oxidized resist.

1 35. A method of manufacturing a printed circuit comprising contacting a board
2 including a resist with a composition comprising an oxidant.

1 36. The method of claim 35, further comprising oxidizing the resist.

1 37. The method of claim 35, wherein the resist is overplated.

1 38. The method of claim 35, wherein contacting the board with the composition
2 includes spraying the composition on the board.

1 39. The method of claim 35, wherein contacting the board with the composition
2 includes immersing the board in the composition.

1 40. The method of claim 35, wherein the composition includes a pH modifier.

1 41. The method of claim 40, wherein the pH modifier is an acid.

1 42. The method of claim 40, wherein the pH modifier is a base.

1 43. The method of claim 40, wherein the pH modifier includes sodium carbonate.

1 44. The method of claim 40, wherein the pH modifier includes sodium carbonate
2 and the oxidant include hydrogen peroxide.

1 45. The method of claim 35, further comprising maintaining the composition at a
2 temperature greater than 80 °F.

1 46. The method of claim 35, wherein the oxidant includes hydrogen peroxide.

1 47. The method of claim 35, wherein the oxidant includes sodium perborate.

1 48. The method of claim 35, wherein the oxidant includes an organic peroxide, a
2 peracid, or a hydroperoxide.

1 49. The method of claim 35, further comprising removing a waste material from
2 the equipment, the waste material including water, an oxidant, and an oxidized resist.

1 50. A composition for treating a printed circuit board resist comprising an
2 aqueous solution of an oxidant.

1 51. The composition of claim 50, further comprising a pH modifier.

1 52. The composition of claim 51, wherein the pH modifier is a carbonate salt.

1 53. The composition of claim 52, wherein the concentration of the carbonate salt
2 is between 20 grams per liter and 200 grams per liter.

1 54. The composition of claim 50, wherein the oxidant includes an organic
2 peroxide, a peracid, or a hydroperoxide.

1 55. The composition of claim 50, further comprising a surfactant that is not
2 oxidized by the oxidant.

1 56. The composition of claim 50, wherein the oxidant is hydrogen peroxide.

1 57. The composition of claim 56, wherein the concentration of hydrogen peroxide
2 is between 2.0% and 10% by volume.

1 58. The composition of claim 56, further comprising a pH modifier.

1 59. The composition of claim 58, wherein the pH modifier is a carbonate salt

1 60. The composition of claim 59, wherein the concentration of hydrogen peroxide
2 is between 2.0% and 10% by volume and the concentration of the carbonate salt is between
3 20 grams per liter and 200 grams per liter.

1 61. The composition of claim 59, wherein the concentration of hydrogen peroxide
2 is between 3% and 6% by volume and the concentration of sodium carbonate is between 40
3 grams per liter and 100 grams per liter.

1 62. A composition for treating a printed circuit board resist comprising an
2 aqueous solution of hydrogen peroxide and acetic acid.

1 63. The composition of claim 62, wherein the concentration of hydrogen peroxide
2 is between 2.0% and 10% by volume.

1 64. The composition of claim 62, wherein the concentration of acetic acid is
2 between 1% and 10% by volume.

1 65. The composition of claim 62, wherein the concentration of hydrogen peroxide
2 is between 2.0% and 10% by volume and the concentration of acetic acid is between 1% and
3 10% by volume.

1 66. The composition of claim 62, wherein the concentration of hydrogen peroxide
2 is between 3% and 6% by volume and the concentration of acetic acid is between 3% and 6%
3 by volume.

1 67. A composition for treating a printed circuit board resist consisting essentially
2 of an aqueous solution of an oxidant and a pH modifier.

1 68. A composition for treating a printed circuit board resist consisting essentially
2 of an aqueous solution of hydrogen peroxide and a carbonate salt.